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REMARKS

Claims 1-29 are pending in the captioned Application in which claims 1-6 are allowed and claims 7-29 are rejected.

Claims 6, 13, and 26 are amended to clarify that the replaced word "that" linked the subsequent clause to the term "the at least one picture" as originally recited. This change is a grammatical clarification of equivalent scope that does not narrow any element or limitation of the claim. Claim 29 is amended to correct a typographical and/or grammatical omission of the word "to" for proper tense of the verb "to produce."

This amendment does not narrow the scope of any claim element or limitation and so is not limiting of any claim element or limitation, and Applicant reserves the right to the benefit of the doctrine of equivalents with respect thereto.

Rejection Under 35 U.S.C. 102(b):

Claims 7-29 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,731,839 to Panaro. The rejection is respectfully traversed.

Panaro et al relates to a bitstream for evaluating predictive video decoders and a method for generating same wherein the bitstream includes two predictively coded pictures (P-frames) serve as "anchor frames" that straddle a bi-directionally coded (B-frame) frame, actually several B-frames. Specifically, the anchor frames are predictively coded with different motion vectors so that the proper decoding of the B-frames will produce a uniform gray region and improper decoding of the B-frames will produce a non-uniform gray region, e.g., one with bright dots and/or lines. (Figure 3; Column 4, lines 15-37 and column 5, lines 23-43).

Predictively coded (P-frame) pictures are indirectly coded. Even if different portions of a P-frame are coded with different motion vectors, the P-frame remains indirectly coded.

Bi-directionally coded (B-frame) pictures are indirectly coded.

Therefore, all of the P-frames and B-frames in the bitstream of Panaro are indirectly coded. It is not seen where Panaro describes, or even suggests, an image or picture having two or more

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regions that are differently coded, i.e. a direct-coded region and an indirect coded region of a picture/frame. Panaro describes only frames, e.g., I-frames, P-frames and B-frames, and is not seen to describe differently coded regions of a frame or picture.

The Examiner's assertions do not reflect this and so the basis for rejection appears incorrect, and the rejection should be withdrawn.

On the other hand, Applicant's invention relates to a test bitstream comprising a coded representation of a sequence of pictures wherein at least one picture of the sequence of pictures includes a region that is a direct-coded representation of a reference image portion and a region that is an indirect-coded representation of the reference image portion. The two differently coded regions of the picture facilitate evaluation of a decoder because the decoded picture from the decoder, e.g., a decoder being tested, may be compared against each other.

In other words, in Applicant's invention, the at least one picture includes [at least] two regions, one region being a direct-coded representation of the reference image portion and the other region being an indirect-coded representation of the same reference image portion, represented in the test bitstream. In application, Applicant's test bitstream may be applied to the decoder being tested, and the output of that decoder includes pictures having decoded regions corresponding to the direct-coded region and the indirect-coded region. Comparing may be by comparing the two decoded portions of the one decoded picture from the decoder being tested.

Because Applicant's bitstream includes a reference image with two differently coded regions, when the bitstream is utilized to test a decoder, the decoder being tested is, in effect, made to test itself, i.e. to test its own direct decoding function against its own indirect decoding function with respect to the reference image. If either the direct decoding or the indirect decoding or both is not properly decoding, that would be evident from the two regions of the decoded picture.

Further, it is noted that the bitstream of Applicant's invention includes at least one picture having at least two regions in which the reference image is differently coded, thereby to facilitate in one output picture a direct comparison (e.g., side by side comparison) of the decoded versions of the two differently coded regions.

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Accordingly, the method of Applicant's claim 7 is patentable at least because it

recites:

"producing a bitstream of at least one picture of the sequence of pictures, wherein the at least one picture includes a region that includes a direct-coded representation of the reference image portion and a region that includes an indirect-coded representation of the reference image portion,"

which is not described by Panaro.

Applicant's claims 8-12 are patentable at least because they depend from patentable

claim 7. In addition, claim 8 recites that the direct-coded representation is intra-coded and ...

the indirect-coded representation is one of predictively and bidirectionally coded, claim 10

recites the reference image portion has at least one indicia and a portion of the indicia is in

the direct-coded region and a portion in the indirect-coded region, and claims 11 and 12 recite

producing in the bitstream an additional picture that is a direct-coded representation of the

reference image portion and follows the one picture that includes direct-coded and indirect-

coded representations thereof, none of which is described by Panaro.

In addition, the apparatus of Applicant's claim 13 is patentable at least because it

recites:

"a generator of a bitstream of at least one picture of the sequence of pictures, wherein the at least one picture includes a region that is a direct-coded representation of the reference image portion and a region that is an indirect-coded representation of the reference image portion,"

which is not described by Panaro.

Applicant's claims 14-20 are patentable at least because they depend from patentable

claim 13. In addition, claim 14 recites that the direct-coded representation is intra-coded and

... the indirect-coded representation is one of predictively and bidirectionally coded, claim 16

recites the reference image portion has at least one indicia and a portion of the indicia is in

the direct-coded region and a portion in the indirect-coded region, and claims 18 and 19 recite

the bitstream generator generates an additional picture that is a direct-coded representation of

the reference image portion and follows the one picture that includes direct-coded and

indirect-coded representations thereof, none of which is described by Panaro.

Further, Applicant's claim 20 is patentable at least because it recites:

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"A bitstream for testing a decoder comprising a coded representation of a sequence of pictures wherein at least one picture of the sequence of pictures includes a region that is a direct-coded representation of a reference image portion and a region that is an indirect-coded representation of the reference image portion,"

which is not described by Panaro.

Applicant's claims 21-25 are patentable at least because they depend from patentable claim 20. In addition, claim 21 recites that the direct-coded representation is intra-coded and ... the indirect-coded representation is one of predictively and bidirectionally coded, claim 23 recites the reference image portion has at least one indicia and a portion of the indicia is in the direct-coded region and a portion in the indirect-coded region, and claims 24 and 25 recite the bitstream includes an additional picture that is a direct-coded representation of the reference image portion and follows some picture in the sequence of pictures, none of which is described by Panaro.

Finally, the storage medium of Applicant's claim 26 is patentable at least because it recites:

"means for causing a computer to produce a coded bitstream that includes at least one picture of the sequence of pictures, wherein the at least one picture includes a direct-coded representation of the reference image portion and an indirect-coded representation of the reference image portion,"

which is not described by Panaro.

Applicant's claims 27-29 are patentable at least because they depend from patentable claim 26. In addition, claim 27 recites means for causing the computer to produce an intra-coded representation of the reference image portion, and claim 28 recites means for causing the computer to produce one of a predictively-coded and a bidirectionally-coded representation of the reference image portion, none of which is described by Panaro.

In addition, it is submitted that nothing in Panaro even suggests the novel and unobvious features of the method, apparatus, bitstream, and storage medium recited by Applicant's patentable claims as set forth herein.

Accordingly, the rejection under 35 U.S.C. 102(b) is overcome and should be withdrawn.

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Formal Drawing:

Applicant previously submitted two (2) sheets of formal drawing in a separate paper addressed to the Official Draftsperson. Confirmation in the next paper of the approval thereof is again solicited.

Information Disclosure:

On Nov. 10, 2003, Applicant filed a Letter to the Examiner requesting correction of the patent number of US 5,798,788 to Meehan et al which had previously been cited and made of record. Confirmation that the correction has been made is again requested.

Conclusion:

Applicant respectfully requests that the rejections be withdrawn, and that the Application including claims 1-29 be allowed and passed to issuance.

The number of claims remaining being the same as or less than the number previously paid for, no fee regarding the claims is due in consequence of this response. However, should any fee be due in consequence of this response, please charge such fee and deposit any refund to Deposit Account 04-1406 of Dann, Dorfman, Herrell & Skillman.

The Examiner is requested to telephone the undersigned attorney if there is any question or if prosecution of this Application could be furthered by telephone.

Respectfully submitted,
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